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FIG. 1

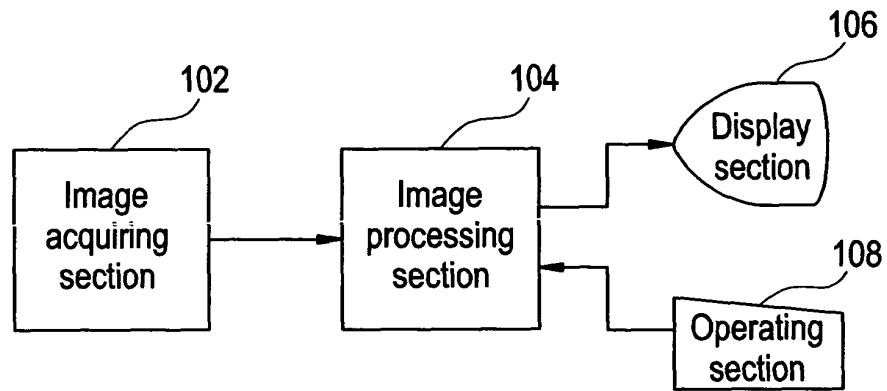


FIG. 2

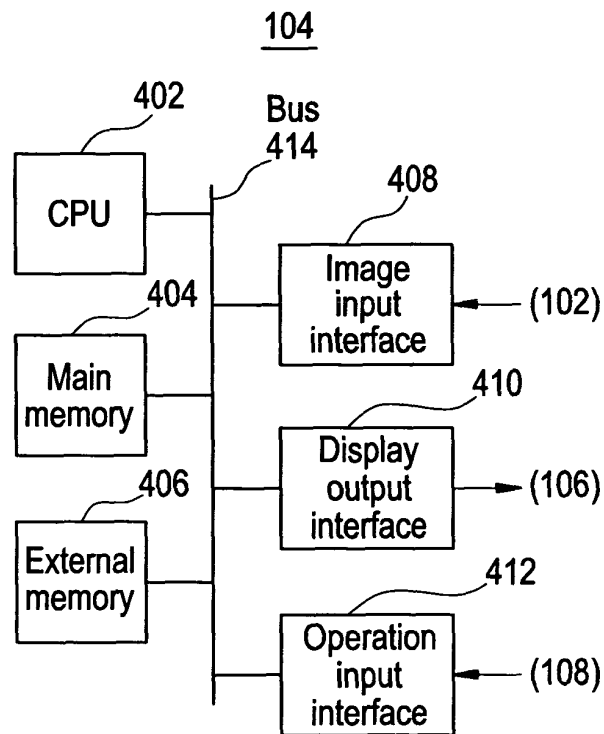


FIG. 3

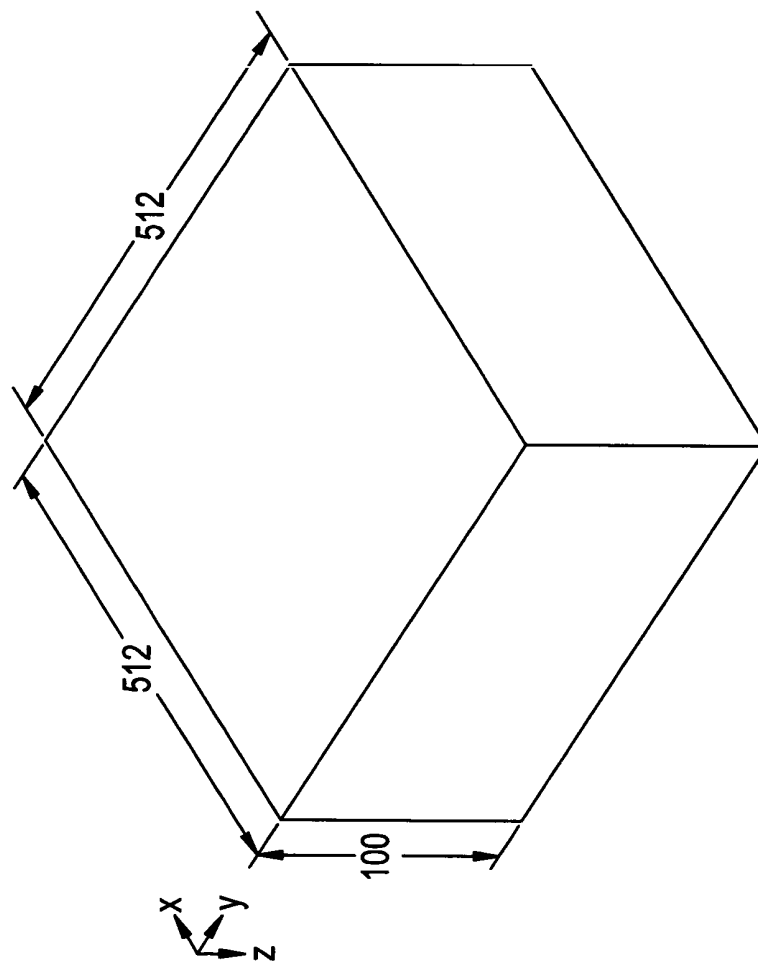


FIG. 4

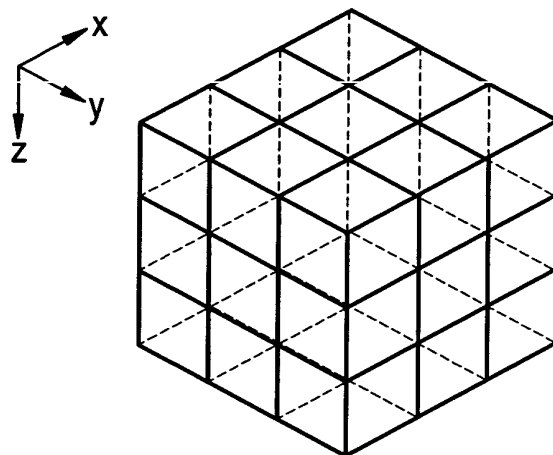


FIG. 5

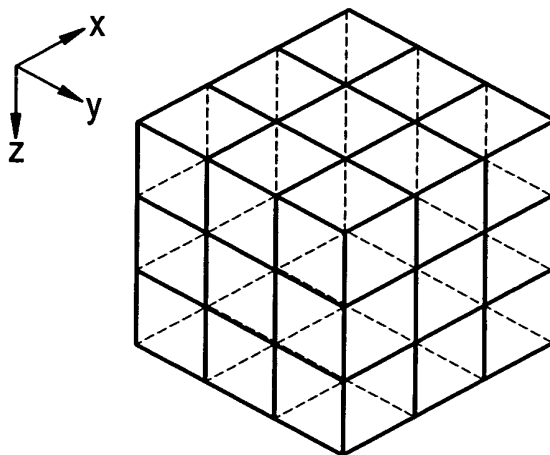
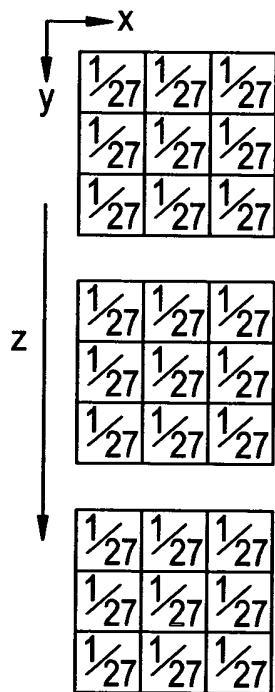
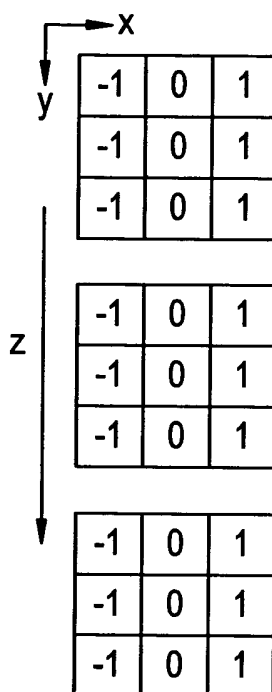


FIG. 6A



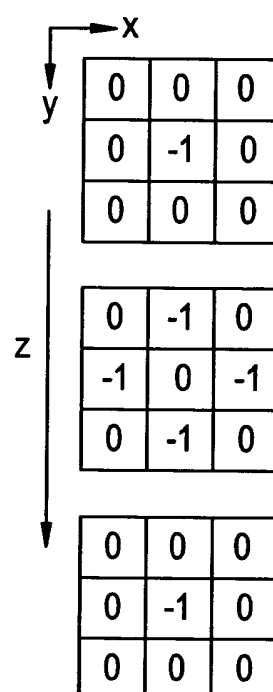
Example of smoothing  
filter

FIG. 6B



Example of 1st-order  
differentiation filter  
in x-direction

FIG. 6C



Example of 2nd-order  
differentiation filter

FIG. 7A

|    |   |   |
|----|---|---|
| 1  | 1 | 1 |
| 0  | 1 | 1 |
| -1 | 0 | 1 |

FIG. 7B

|    |    |   |
|----|----|---|
| 0  | 1  | 1 |
| -1 | 0  | 1 |
| -1 | -1 | 0 |

FIG. 7C

|    |    |    |
|----|----|----|
| -1 | 0  | 1  |
| -1 | -1 | 0  |
| -1 | -1 | -1 |

$(z - 1)$

$(z)$

$(z + 1)$

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FIG. 8

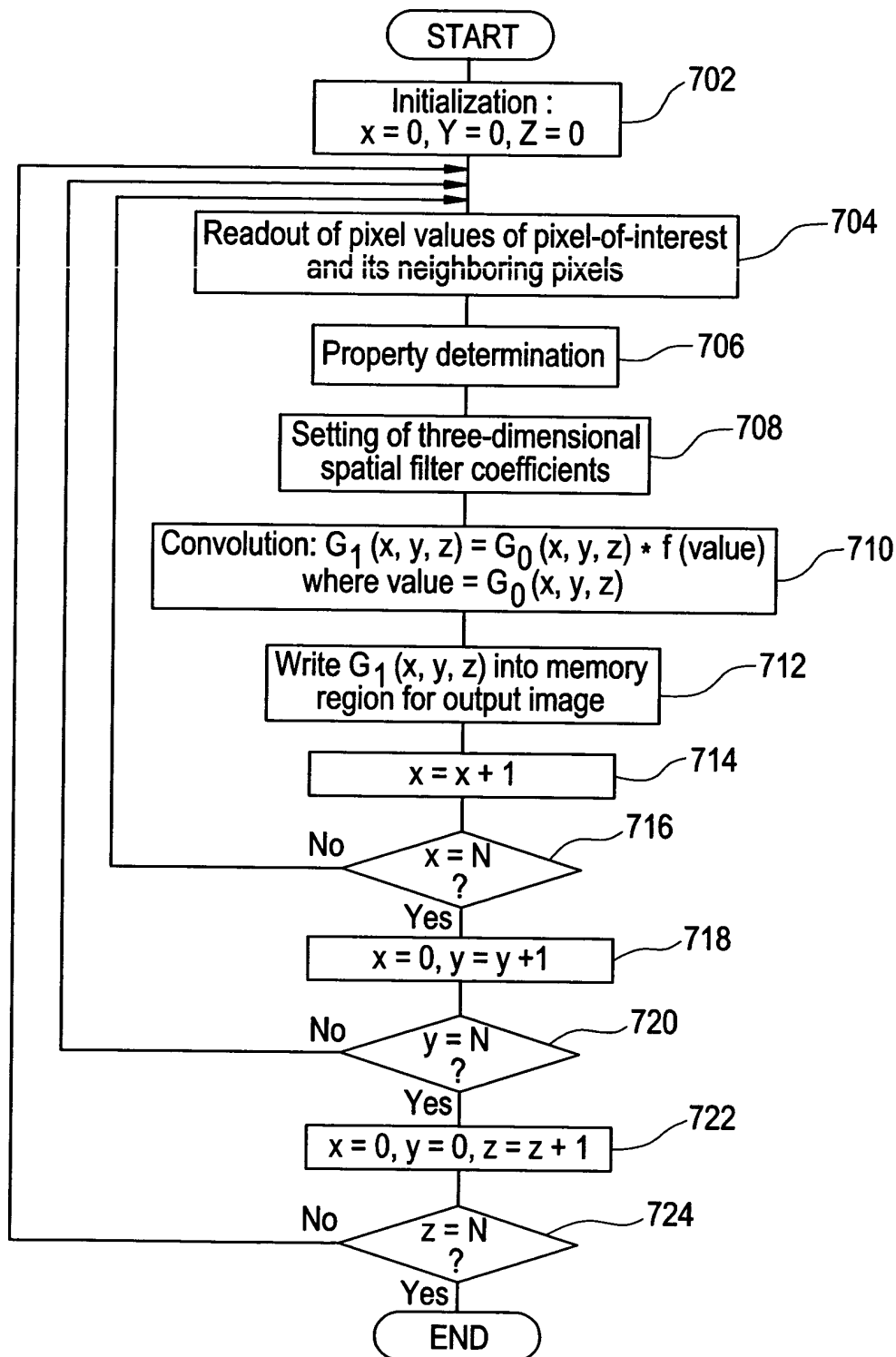


FIG. 9A

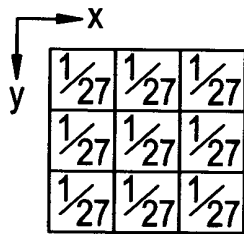


FIG. 9B

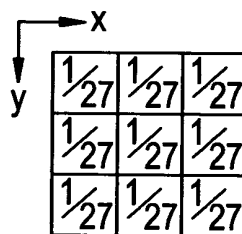
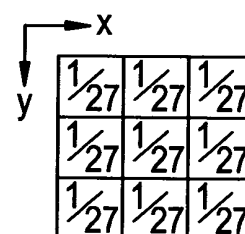


FIG. 9C



—→ z

(z - 1)                      (z)                      (z + 1)

FIG. 10A

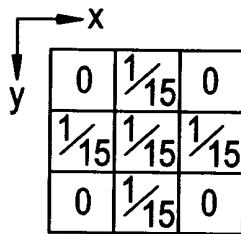


FIG. 10B

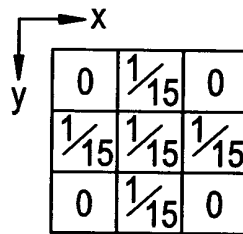
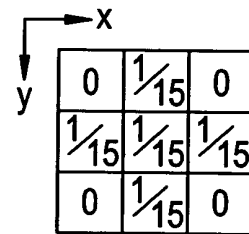


FIG. 10C



(z - 1)

(z)

(z + 1)



FIG. 11A

|   |               |   |
|---|---------------|---|
| 0 | 0             | 0 |
| 0 | $\frac{1}{7}$ | 0 |
| 0 | 0             | 0 |

FIG. 11B

|               |               |               |
|---------------|---------------|---------------|
| 0             | $\frac{1}{7}$ | 0             |
| $\frac{1}{7}$ | $\frac{1}{7}$ | $\frac{1}{7}$ |
| 0             | $\frac{1}{7}$ | 0             |

FIG. 11C

|   |               |   |
|---|---------------|---|
| 0 | 0             | 0 |
| 0 | $\frac{1}{7}$ | 0 |
| 0 | 0             | 0 |

—————→ z  
(z - 1)                      (z)                      (z + 1)

FIG. 12A

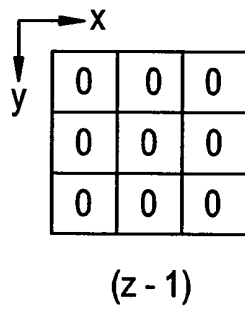


FIG. 12B

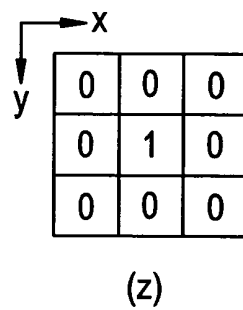


FIG. 12C

